SUBTERRANEA BRITANNICA

SECRETARY'S NEWSLETTER FEB. No.4 1990

Editorial.

At the AGM there was an appeal made for volunteers for the committee. In response to a question it was explained that we have two or three committee meetings each year, always on a saturday morning at a member's home and extending into the afternoon. Since it is hard and thirsty work it is vital that sustaining food and drink is partaken; normally at the local hostellery over an extended lunch time. There is also often a local underground site which needs immediate research by the whole committee during the same afternoon. This plus the normal committee work, to say nothing of the relation of little anecdotes which are obviously vital to the proceedings, clearly make for a very arduous days work.

If you think you can stand the rigors of the day, have one or two ideas, and don't mind doing a little work for Sub. Brit. why not give it a one day trial. Remember you don't have to attend the Sub-Committee, sometimes held after hours at another hostelry.

Apply to Malcolm Tadd or Paul Sowan.

Reigate. A Cave of Their Own.

Facing competition from commercial organisations Unit Two Cave Research and exploration have won Reigate and Banstead Borough Council's concession to operate the Baron's Cave in Reigate as a local amenity.

Unit Two is the local caving club but most East Surrey Sub. Brit. members belong to it. If you wish to visit the cave, apply to the Tadds.

The Baron's Cave is a small, ancient man-made underground feature dug into the sandstone in the centre of the town and remains after the council's recent infilling of most of the other underground sites in Reigate. This work has been the subject of two Day Conference talks.

Unit Two plan to encourage local interest in the underground with exhibitions in the cave which is also suitable for young children.

New Members.

Welcome to;

John Graham-Cumming.	Essex.	Arthur Price.	Gloucestershire.
David Theobald.	London.	Joan Whitehouse.	South Yorks.
P.J.Clark.	London.	Adrian Collings.	Birmingham.
S.J. Evans.	Bath.	Charles Norrie.	London.
J.H. Littlefair.	Essex.	Collin Seaton.	Leicestershire.
Peter Bowbeer.	Essex.	T.J. Martin.	Sussex.
S. Wild.	London.	Jerome Triolet.	France.
Richard Butler.	Surrey.	T. Huggins.	London.
		S. Greene.	London.

and to Corporate Members.

The Channel Tunnel Association. (Chairman, Alan Titchener.)
Groundscan. (Tony Wood.)

Autumn Day-Conference and AGM 1989.

This meeting was held in the excellent, newly built conference building at Lucy Cavendish College Cambridge and was well attended.

Tim Tatton-Brown, an eminent professional archaeologist gave a well-illustrated lecture on the cathedral undercrofts and Andrew Plumridge, an architect, gave a wide ranging illustrated review of underground follies and grottos. Andrew also introduced us to the Folly Fellowship, an organisation with which we exchange journals.

Sub. Brit's own Peter Burgess used his research on the East Surrey underground stone quarries to illustrate the evolution of underground transport.

There was little surprise at the AGM and the same team was returned as the committee with only a few changes. Deryk Lamming retired because of pressure of work and therefore follows Tony Howells who was forced to retire during the year for the same good reason. They are both to be thanked for all their good work on the committee.

Obituary.

I am sorry to say that one of our former members, Dr. John Clements died in July. He will be remembered as a man of great determination who would let nothing stand in his way despite advancing years and declining health. Sub. Brit. only knew him in his later years and even then he was a fairly daunting character.

There was a fine obituary to him, by Eric Robinson, in the Geologists Association Circular, November 1989.

Appeals.

Abbotsbury, Dorset.

By climbing Chapel Hill I was able to photograph a large group of shallow depressions at approx. SY 5820 8470, on the hill across the valley. Does anyone know the significance of these? (There has been talk of iron ore and Fullers' Earth extraction in the locality. There were certainly building stone quarries in the neighbourhood.

Underground Ballroom/Billiard Room at Witley Park, Surrey.

The appeal in the last newsletter resulted in a letter to Peter Tarplee, Secretary of Surrey Industrial History Group. They exchange with us and sometimes pass on extracts from our newsletter.

Laurence Baker now of Ross-Shire wrote,

"I am probably one of the few SIHG members to have been in the room and that was in the mid-fifties. My recollection is of a grotty hole down a set of slippery steps into a chamber perhaps 15ft by 10ft with a plate glass ceiling nearly obscured by mud and soggy dead leaves on top of it. This is the first time I have heard it called a billard room and one would need sawn-off cues and a miniature table."

Book Review.

The Iron Moor. Alen McFadzean. Red Earth Publications, 7, Silver Street, Marton, Ulverston, Cumbria, LA12 0NQ. 1989. pp 148. 16 plates plus maps and

sketches. If you mention that you are a member of Sub. Brit. it costs £6.20 + £1 p and p. Otherwise another 70p.

The book is the history of the Lindal Moor and Whittriggs haematite iron mines. At the time of writing this review I have not found time to read it but a mere quarter hours' scanning proves it to be a most excellent book. It appears to give a connected, illustrated story written in a literate and readable style.

I recommend you buy it now. I don't think you will get better value.

SERIAC Conference 10th March 1990.

This is to be held at the Royal School of Military Engineering, Chatham, Kent and the theme is to be the contribution to the development of technology by the Royal Engineers during the 19th Century. The cost for the day will be £7.50 and the next day there will be site visits. Send to Barbara Tadd for details.

Fort.

Fort, The International journal of fortification and military architecture, is a beautifully produced journal which students of the underground will need to read. It is published once a year and volume 17, 1989 is largely occupied, in its 108 pages, with articles on fortresses on the continent. The article on Dutch and Belgium defences in 1940 is particularly detailed. There is also an article on West Country defences in England but otherwise forts in other parts of the world are featured. The section ,"Recent Publications" is very good. Publishers - Carfax Publishing Company, P.O. Box 25, Abingdon, Oxfordshire OX14 3UE. Cost, £14 per volume.

Very Unusual Sand Caves at Redhill.

Redhill grew up in the marshy area at the northern foot of the greensand ridge which follows the North Downs through Surrey. Very little of the marsh remains except a few acres of land just north of Redhill and to the east of the London to Brighton railway line, which runs north-south. A more unlikely place to find a natural cave cannot be imagined. Nevertheless the area has been extensively exploited for sand, certainly back into the last century. The various deep pits which have resulted have themselves diminished the amount of the marshes. The latest of these was opened in the 1970s and is still being worked for both sand and Fullers' earth.

It is always worth the underground archaeologist following the progress of working quarries and on Sunday 27th august 1989 I was rewarded by noticing, from the distance, what appeared to be a large cavern about one-third of the way down the western face. At a guess the pit is 200ft deep and because of the dip in the strata the western face is sand whereas the eastern is Fullers' Earth. (It would be slightly more accurate to describe the alignment of this large irregularly shaped pit, as NE-SW.)

The next day Chris Bayley and I scrambled down a convenient pipe line and established that the cavern had all the appearences of a natural stream cave, with part excavated away. It was certainly large enough for the traditional double decker bus and, once in its vicinity on the steep cliff face,we felt we were in a scene more reminiscent of a limestone karst system than anything Surrey had ever before offered. Water flowed from the cave and had cut its way into a deep channel before going over the edge of the sand cliff and down to the floor of the quarry. There were also remnants of other caves nearby, indicating we were seeing the remains of a complex system.

Later in the day Chris returned with Matthew Clarke and Matthew's girl friend. Chris dubbed it the Nutfield Marsh Stream Cavern.

Later in the week the cave was revisited by, Paul Sowan, Harry Pearman, Nick Catford, John Collett, Graham Christian and, once again, Malcolm Tadd and Chris Bayley. The cave was then surveyed but during this time Malcolm noticed the crown of another (inaccessible) cavern, to the SW of the pipe line, collapse in a cloud of dust. The collapse was unprovoked but it had been very hot and dry for many weeks before hand.

Near the region of the cave at which the roof collapse occurred, but not so far to the SW, Nick Catford found another three chambered cave which was very dangerous and could only be crawled into. A quick survey was made and more photographs taken. Rising water caused the process to be hastened. (Note that this cave was well above the floor of the pit.)

On 9.9.89 Peter Burgess reported that the, Nutfield Marsh Stream Cavern had collapsed after heavy rain.

On January 13th 1990 I made further distant note of the quarry and ascertained that the area we had surveyed had now been excavated away and with the intense working activity the whole appearence of the quarry had altered.

Interpretation.

At the time of our exploration the pit was unfenced near the caves, although at first a little courage was needed to descend the steep face. Many photographs were taken and a panoramic view constucted with telephotographs indicate that numerous little caverns permeate the western face right down to the blue stratum of impermeable Fullers' Earth, which was in the course of being extracted at the floor of the pit. In one place a considerable stream of water poured into the pit issuing from the interface of the sand and Fullers' earth strata.

Detailed study of underground systems would have required that we entered the pit proper, which was probably being worked jointly by Laporte for Fullers' Earth and Hepworth for sand. As the quarry was being worked apace for both these minerals, it is unlikely that permission would have been granted.The hypothesis advanced below is therefore based on observations at a distance.

The summer of 1989 was one of severe drought but I also looked at he quarry during the following Christmas holiday period previous to which had been days of heavy rain which had turned the meadow above the quarry into a lake. At this time access to the edge of the pit was prevented by a dangerous "quickening" of the sand. An observation was made on an approximately one metre square area of sand which had an one open edge allowing water to drain out of it into a ditch. This showed a streamlet flowing into the area draining into tiny sink holes. (Photos taken). The fact that this sand bank had been washed hollow was adequately demonstrated by its collapsing under my weight.

The hypothesis is, that winter rains tend to wash out small unstable caverns where vertical faces, in these Folkestone beds of the Lower Greensand, are exposed, and, under special drying conditions, and a steady but diminishing flow of water the caverns may be stabilised. These conditions may have been met by last summers drought and by the weather conditions leading to it. (In the case of the Nutfield Stream Cave there is possibly an additional factor. The excavations in January 1990, which completely destroyed the cavern, exposed a bed of hard grey rock above the location of the cave.)

The hypothesis fails to explain why, despite years of observations on other sand pits between Redhill and Godstone, this phenomenon has not been

noticed before. To add to the mystery I made observations during the same wet Christmas period on another newly exposed deep sand quarry face at North Park Farm Godstone. Extreamly spectacular, partly well-like, vertical gullies had been washed into the northern face. (It was not possible to get very near these faces and field glasses were used to advantage.)

Finally one must ask if the erosion characteristics of modern sand pit faces, produced rapidly by bull-dozer and lorry, differ from the older faces produced by drag line or steam shovel. Or perhaps we are considering zones of the Folkestone beds with subtlety different properties? Readers views are awaited with much interest.

M.Tadd. 1990

Stone-quarrying Underground in Oxfordshire and Gloucestershire.

Data from: W.J. Arkell, Oxford Stone, Faber and Faber, 1947.
(Republished 1970 by S.R. Publishers Ltd., Wakefield,
ISBN 0 85409 615 9)

These notes abstracted by Paul Sowan. It is hoped that they will stimulate our members in the localities to send the editor more information.

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Burford, Barrington, Windrush and Sherborne Quarries.

All these quarries are opened in the strip of Taynton stone that crops out as a continous band along the side of the hill on the south bank of the Windrush, between the river and the main road that runs to Cheltenham along the ridge 150-200 feet above. All have long been deserted and are now marked by clumps of beech trees, or hollows brimming with may or elder. In all of them the quarrymen had to contend with an overburden of 15 to 20 feet of Hampen Marly Beds, with sometimes white limestone as well, and to avoid continuing under this handicap adits were eventually driven underground and the stone was mined, at least at Barrington, Windrush and Sherborne. At Little Barrington (plate 13) part of the mine is said to run under the New Inn, beside the Cheltenham Road,(2) and the quarrying were called up for meals by the publican's wife thumping on the floor of the parlour. (See map, fig. 27, at end.)

(pl. 13 shews cottages)

(2) L. Richardson, 1933, the Country around Cirencester, 43. Memoir Geol. Survey.

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We last hear of Barrington stone in Oxford in 1804, when Corpus resolved 'to new face the inner walls of the College ... with Windrush or Barrington stone.' (4) From its appearance ... the stone put up as a result of this resolution was evidently Barrington; (5) it is certainly not Windrush stone. The mine was closed before the end of the nineteenth century, probably because it became unsafe, (1) but a little opencast quarrying is still carried out there.
(4) T. Fowler, 1893, 'History of C.C.C., Oxford History Society, xxv, 78.
(5) This is confirmed by Ingram, 1837, Memorials of Oxford, ii, 'Corpus',

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(1) Information from Mr. George Swinford of Filkins.

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Windrush Stone

... The fifteenth-century village church and elaborate tombstones in the church-yard dated 1681 and 1690 were singled out of the whole country for their perfect condition, by the Royal Commission appointed to select stone for the new Houses of Parliament in 1839. The commission stated that the good freestone was 4 feet thick, in two or three beds, the thickest bed 2 feet 6 inches, and was over-lain by 6 feet of shelly rock; and that the mine then extended for 170 yards into the hill, and had 'another subterranean quarry below it, with 10 or 11 feet of workable stone'. (2) (The meaning of the last statement is not clear.)

The Windrush mines were closed about 1900 because parts of them had become unsafe and expensive alterations would have been required to bring them into conformity with government regulations. ... I was told by Mr. George Swinford, of Filkins, who worked as a mason at the quarry before 1911, that he once entered the mine. He found galleries, in places 14 or 15 feet high, which he penetrated for a short distance, probably under and beyond the Cheltenham road, and he saw some of the trucks by which the stone was brought to the mouth of the adit. There was also an underground stable in which donkeys used to be kept.

(2) Report on selection of stone for the New Houses of Parliament, 1839, p.27 and table A.

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Sherborne stone is recorded even earlier than the others ...

In these early times the stone may have come from the ancient quarries at Hill Barn, nearly a mile SSE. of Sherborne church, which are very deep and have always looked the same in living memory. The principle quarries, however, are the mines in the park, in the upper end of what is now a wood, on the extreme west edge of the map, fig. 27. It was from these mines that the stone was obtained for the mansion at Sherborne. They remained in use until 1915 for the needs of the estate (4) and three galleries can still be entered. They are about 10, feet high with a ceiling of solid stone and about 10 feet more Taynton ston above, before the Marly Bebs come on. ... Unlimited reserves remain. The highest part stratigraphically, above the roof of the mines in the park, is still worked for wall-stone in an opencast quarry east of the road near Hill Barn ...

(4) Information from Mr. George Swinford, of Filkins, who worked at Barrington, Windrush and Hill Barn (opencast) quarries between 1900 and 1918.

Location of quarries.

The descriptions and geological map in Arkell's book allow the underground quarries mentioned to be located as follows ...

Little Barrington SP 203122 SSW of Little Barrington & N of A40

Windrush	SP 189128 SP 190127	Either side of the westernmost of the two minor roads running from the Windrush to the A40.
Sherborne	SP 165141	In woodland at S. side of Sherborne Park

Paul W. Sowan. 8.10.89

(Burford is in Oxfordshire but Little Barrington, Windrush and Sherborne are in Gloucestershire just over the county border.)

Iron Mines and Railway Tunnels in Northamptonshire.

Following reports of underground features, one or two of us have been investigating the East Midlands. We failed with stone mines at Welland but were fortunate to meet iron mines enthusiasts Alan Pack and Greg Evans. This led to Alan Pack giving a talk on the vast but inaccessible iron mines at Irthlingborough at one of the Day Conferences.

There was once an enormous iron and steel industry centred around Corby and Kettering which has now almost disappeared bequeathing to the industrial archaeologist a paradise - apart from the fact that most relicts are fast disappearing beneath land-fills and modern amenities such as hypermarkets and leisure centres.

During the weekend 12-14th May 1989, Malcolm Tadd, Barbara Tadd and John Fraser met Greg. Evans at Kettering. The notes which follow are merely on the underground aspects of our visit, although one cannot really isolate the underground from the total industrial environment in this area. Further visits are planned since we only visited a fraction of the area of interest.

First we visited the Cranford area (SP 918 765) on the course of the abandoned Kettering to Cambridge Midland Railway line, which follows the A604. The disappointment from our point of view was that the A604 was being modernised and that distruction and demolition were in progress.

An endless rope railway system (1ft 6in gauge) once conveyed iron ore in trucks from the **CLAY CROSS CO. LTD** underground workings to the north of the A604 to a tipping dock on the Midland line on the south side. It was still possible to discern a tunnel under the A604 but not a tipping dock. Another blocked tunnel was discernable under the railway embankment.

The Clay Cross Co. Ltd opened underground workings in 1908 but to the south of the line. The northern workings served by the rope way were opened in 1913 but all workings were closed by 1926. In the working days the Clay Cross Iron Works were mainly served.

The southern area was covered with craters, in fact one appeared in recent months. Greg explained that pillar robbing was practiced throughout this area. One crater had a hole washed in the bottom (Greg. said the mining here was beset with water problems) which John was able to penetrate and report galleries.

The area north of the road is now ploughed smooth, although Greg. was able to point out the site of the original drift entrances. Ponies worked these mines. It was possible to view craters in the north eastern part of this area in a wood adjacent to Cranford St. Andrew. SP 918 773. Greg had an aerial photo. obtained from the Cambridge University collection of aerial photography taken on 25.4.1954 which showed the whole region extensively cratered.

Our next excursion was from the Woodford area. From the north side of the A604 a bridleway at 966 783 (actually an official Green Lane) leads to

Lowick, passing by Drayton Park and Drayton House, still the home of the local landed gentry, the Stopford-Sackvilles, and was a route for bringing horses to and from the stables at Islip. Departure from this track to an easterly footpath brought us to SP 970 792 where there was a remarkable tall brick air shaft some distance from the footpath. It commands the heights in this not very hilly district and it served to ventilate, now sealed galleries, 100 feet below. This is the area of Church Mine. (Originally there was Marsh's mine, officially named Church Mine North, and Church mine itself. In 1931 the headings from Church Mine North linked with Church mine itself, forming an enlarged Church mine. The tipping docks at Marsh's mine had fallen out of use by 1933. The ventilating shaft served Church Mine North as part of of the enlarged system.)

From this area we drove to just north of Slipton at SP 950 798. On the east side of the road it was possible, in the dense undergrowth, to discern the remains of the system where ore from Willow Close mine was transfered from trucks on a 2ft 6in railway, by means of a tipping dock to the extensive 3ft gauge. John Frazer pushed into the tunnel which took the 3ft gauge westward under the road but it was not possible to go right through. However it was possible to view the 3ft guage system the other side of the tunnel on the surface and it passed by sealed adits. Greg explained that the adits had been used for ventillation not extraction.

There was another railway tunnel a few yards south which passed under the road with a deep cutting to the west side which was flooded to about waist level.

Further up the road at SP 951 800 it proved possible to walk off the road down a drive and turn northwards into a depression to find a collapse which afforded an easy entrance into an interesting mine system - Woodfield Mine. (Woodfield mine was worked 1902 -1915 and plagued with roof collapses. A cursory inspection showed the roof supported laterally with pieces of railway line and extensive brick pillaring. On leaving we were accosted by two hostile men who accused us of trespassing and ordered us to leave the property. They claimed the land belonged to the Stopford-Sackville family.

We then went to Lowick to the begining of the footpath at SP 974 806 (its an old railway line). Following it to 976 801 we turned south west into the wood shown on the OS map to Marshs' Pit. A shallow depression was shown by Greg which was descended by John who reported a ventilation(?) grill along a short length of passage. This was the former, officially known Church Mine North - popularly known as Marshs' mine.

M.Tadd. 1990

Grassington Moor.

It is not often that in ones plodding around for interesting sites that one comes across a whole moor with descriptive notices every where.

On 14.6.89 we (Barbara and Malcolm Tadd) walked from Grassington up Moor Lane using a map issued by Yorkshire National Park - "Grassington and District Footpaths and Town Maps. Walks Guide."

First a plateau was encountered, across which Moor Lane then led to Yarnbury. The road was flat, solitary and wide allowing plenty of car parking places. Quarrying was much in evidence.

At Yarnbury the "Lead Conservation Area" was encountered which included a "Lead Trail". Maps and notices were displayed and despite a good system of paths, which were once roads associated with the mines, the whole area took hours to get round.

The roads stem from the time of John Taylor, a Norwich born engineer who had previously worked at Morwellen and Wheal Friendship in Devon. He was

the consultant to the landowner; the Duke of Devonshire. Taylor advised the employment of Cornish resident managers. The "roads" were only one of the inovations dating from Taylor's time. The very expensive Dukes Level, a tunnel (adit, sough), was started in 1792 from its low point in Hebden Gill to drain the whole Grassington Moor mining area. It is still draining the system.

The entrance to the Duke's Level can still be found on the west side of Hebden Beck just above Hebden. (Approx SE 0250 6440) It is possible to wade for a considerable distance into the Duke's Level (half a mile claimed) but it is said that it is eventually obstructed. Also caving clubs have found it fruitless to descend shafts on Grassington Moor so that at present the whole system is not available for underground exploration.

The Moor itself is basically dry, and originally the horse whim was used to provide motive power for lifting and crushing ore on the dressing floor.(The horse whim is an invention quite late in the history of mining. It is said that a whim circle can still be found at the nearby Bycliff) However another of Tayler's inovations was to provide water power; the water being pumped from the bottom of wide shafts. Before the Duke's Level this was in any case the method of dewatering the working levels. Using a system of dams leats and waterwheels, which became known as the Duke's Water Course, Tayler put the water to use.

There is still much evidence of the water power system. At Yarnbury a broken dam and associated dry pond can be seen. (SE 0160 6590). Nearby at (SE 0195 6575) Beever Dam still contains water in its pond.

Underground working for lead ceased on Grassington Moor in the 1870s, although smelting continued to 1890. Since then the spoil heaps have been reworked and between 1955 and 1961 fluorspar and barites was recovered. The remains of an ugly concrete plant can be found near the site of the earlier and more elegant Cornish stamps.

Doubtless one day cavers will find their way into the underground workings but meantime, apart from the Duke's Level, the underground explorer will have to be content with the silly exercise of crawling the flues. These were very long arched tunnels which were laid on the hillside from the furnace to the tall chimney on the moor top. Their purpose was to condense out lead fumes which had escaped the furnace and also to permit the removal of noxious sulphurous fumes.

M.Tadd. 1990

This newsletter was produced and edited by Malcolm Tadd, 65, Trindles Road, South Nutfield, Redhill, Surrey. RH1 4JL. All contributions to the next one will be valued. Don't forget! send original articles, newspaper cuttings, short notes, letters to the editor, etc. etc.